



BIOGRAPHY

AIR FORCE RESEARCH LABORATORY

DR. CHARLES H. WARD

Dr. Charles H. Ward is chief of the Manufacturing and Industrial Technologies Division, Materials and Manufacturing Directorate, Air Force Research Laboratory. He leads the Air Force's \$139 million annual investment in Manufacturing Technology, which seeks to increase producibility and reduce manufacturing cost and risk for technology insertion into Air Force weapon systems. He also provides execution oversight of \$2.2 billion in the Defense Production Act Title III program, which establishes, modernizes, and maintains critical industrial capabilities for the Department of Defense.

He previously led the directorate's efforts in Integrated Computational Materials Science and Engineering and was Co-Chair of the Materials Genome Initiative Subcommittee under the National Science and Technology Council. He has served as acting deputy director for the Materials and Manufacturing Directorate, overseeing the day-to-day operations of a 800-person, \$500 million capital asset materials research and development complex executing a \$300 million annual program. His professional career has spanned 33 years, serving in several roles in research, engineering, and management.



Dr. Ward is a retired U.S. Air Force officer.

EDUCATION

- 1984 Bachelor of Science degree in metallurgical engineering and materials science, Carnegie Mellon University, Pittsburgh, PA.
- 1985 Master of Science degree in metallurgical engineering and materials science, Carnegie Mellon University, Pittsburgh, PA.
- 1992 Doctorate in materials science and engineering, Carnegie Mellon University, Pittsburgh, PA.
- 1992 Squadron Officer School, Maxwell Air Force Base, AL.
- 1998 Air Command and Staff College, by correspondence
- 1999 Advanced Program Management Course, Defense Acquisition University, Fort Belvoir, VA.
- 2004 Air War College, by correspondence
- 2008 Leadership Development Program, Center for Creative Leadership, Greensboro, NC.
- 2012 Leadership for a Democratic Society, Federal Executive Institute, Charlottesville, VA.

CAREER CHRONOLOGY

1. 1986 – 1993, metallurgical engineer and titanium direction manager, Air Force Materials Laboratory, Wright-Patterson Air Force Base, Ohio
2. 1991 – 1992, International Exchange Research Fellow, Air Force Materials Laboratory, Cologne, Germany
3. 1993 – 1997, program manager and deputy director, Aerospace and Materials Sciences, Air Force Office of Scientific Research, Bolling Air Force Base, Washington, D.C.
4. 1997 – 1999, lead integration engineer, then chief, Joint Strike Fighter Propulsion Technology Team, Propulsion Development Systems Office, Patuxent River Naval Air Station, Md.
5. 1999 – 2000, program element monitor, Engine Component Improvement Program Element, and chief, Test and Operations Branch, Directorate of Global Power Programs, Secretary of the Air Force Assistant Secretary of Defense for Acquisition, Pentagon, Washington, D.C.
6. 2000 – 2001, Chief of Staff for the Air Force Acquisition Issues Team, Secretary of the Air Force Assistant Secretary of Defense for Acquisition, Pentagon, Washington, D.C.

Current as of April 2020

In accordance with DoDI 8550.0, the personally identifiable information (PII), as defined in DoDD 5400.11 (Reference (a)), in this document has been approved for public release by the individual.

7. 2001 – 2004, chief, International Materials Programs, and technical director and deputy site commander, European Office of Aerospace Research and Development, Air Force Research Laboratory, London, U.K.
8. 2004 – 2006, assistant chief scientist and acting deputy director, Materials and Manufacturing Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio
9. 2006 – 2012, chief, Metals, Ceramics and Nondestructive Evaluation Division, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio
10. 2012 – 2017, Integrated Computational Materials Science and Engineering lead, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio
11. 2013 – 2014, acting deputy director, Materials and Manufacturing Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio
12. 2016 – 2017, acting deputy director, Materials and Manufacturing Directorate, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio
13. 2017 – present, chief, Manufacturing and Industrial Technologies Division, Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio

MAJOR AWARDS AND FELLOWSHIPS

TMS/ASM International Distinguished Lectureship in Materials and Society

Fellow, ASM International

Vincent J. Russo Leadership Award, Materials and Manufacturing Directorate, Air Force Research Laboratory
Director's Award, Materials and Manufacturing Directorate, Air Force Research Laboratory

Assistant Secretary of the Air Force for Acquisition Award for Innovation

Air Force Scientific Achievement Award